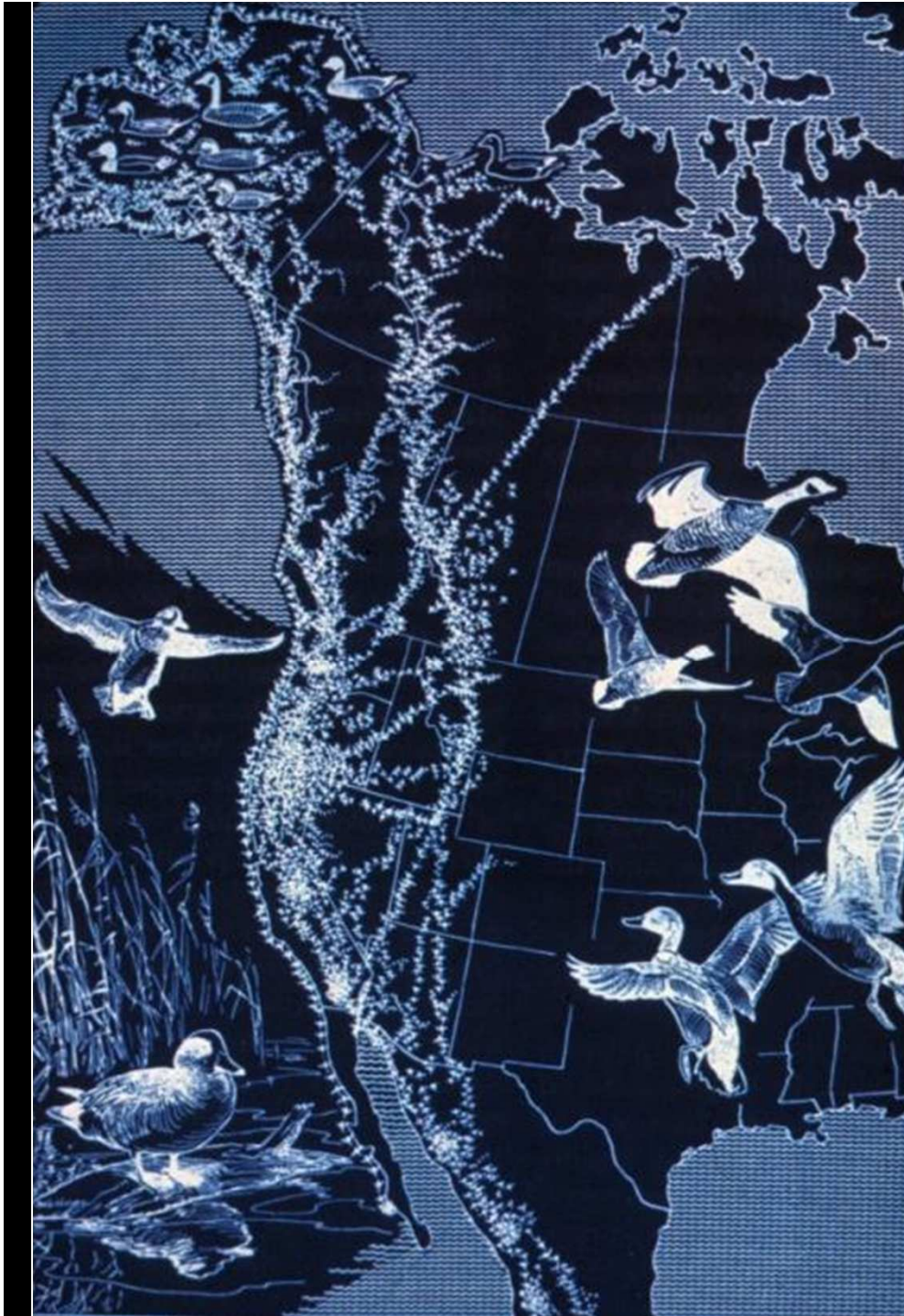


Increasing Goose Populations and Their Potential Impacts to Wetland Habitat in the Sacramento Valley



Mike Wolder, Supervisory Wildlife Biologist,
Sacramento National Wildlife Refuge Complex

May 13, 2011



The Central Valley supports 50-65 % of the Pacific Flyway's wintering waterfowl populations



Existing Wetlands
(~206K acres)
are comprised of
2/3 Private and 1/3
Public Lands...



“Recent” Goose Population Trends

- In the 1970s and early 1980s, Pacific Flyway goose populations had declined to all-time low levels
- Since then, more restrictive hunting regulations and habitat management actions were implemented, and most populations have responded positively
- Currently, most goose populations in the Flyway and Sacramento Valley have increased or are stable
- Some species have had dramatic shifts in distribution within or away from the Sacramento Valley



WHITE-FRONTED GOOSE PACIFIC FLYWAY



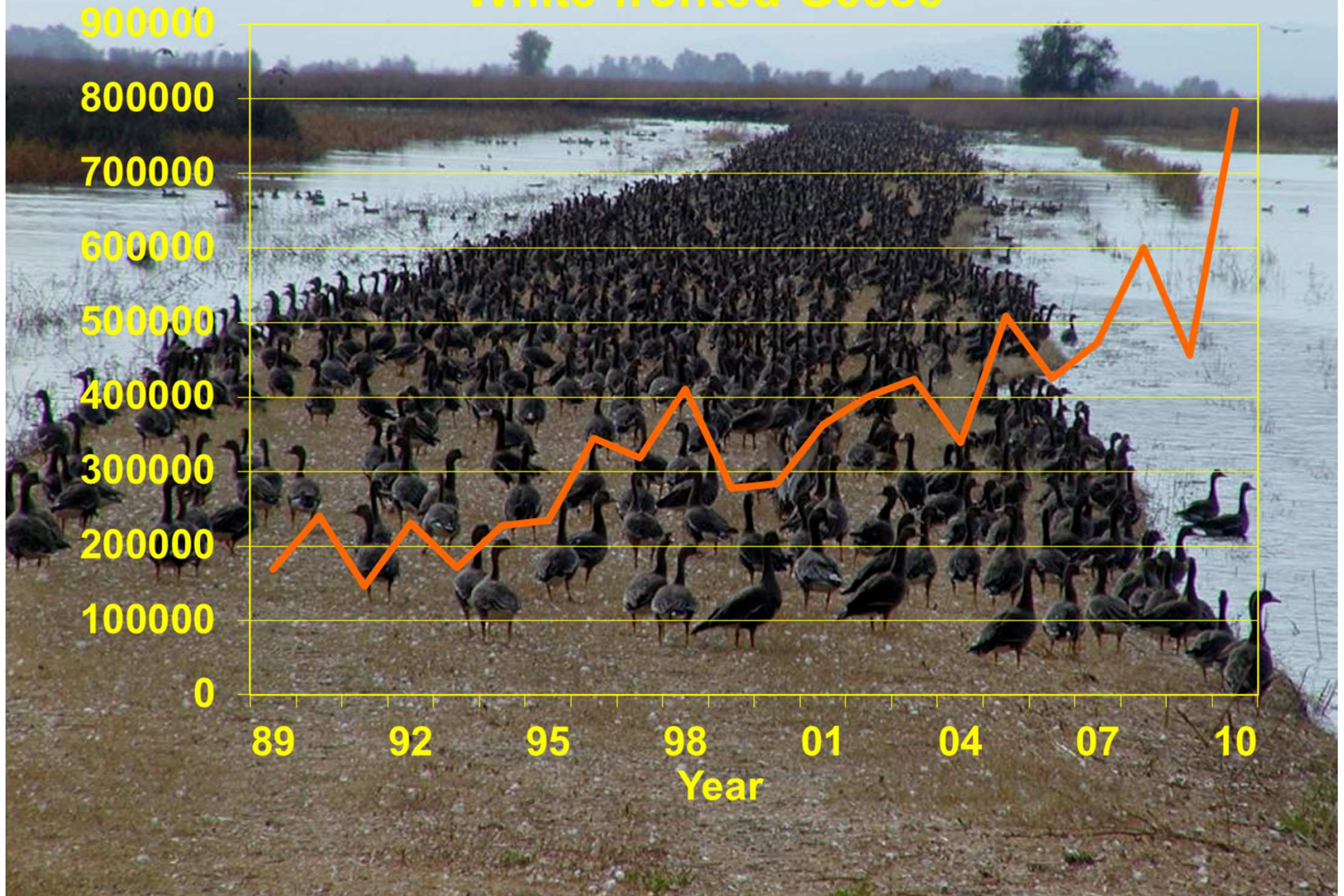
- Breeding Grounds
- Fall Staging/Migration Corridors
- Wintering Grounds





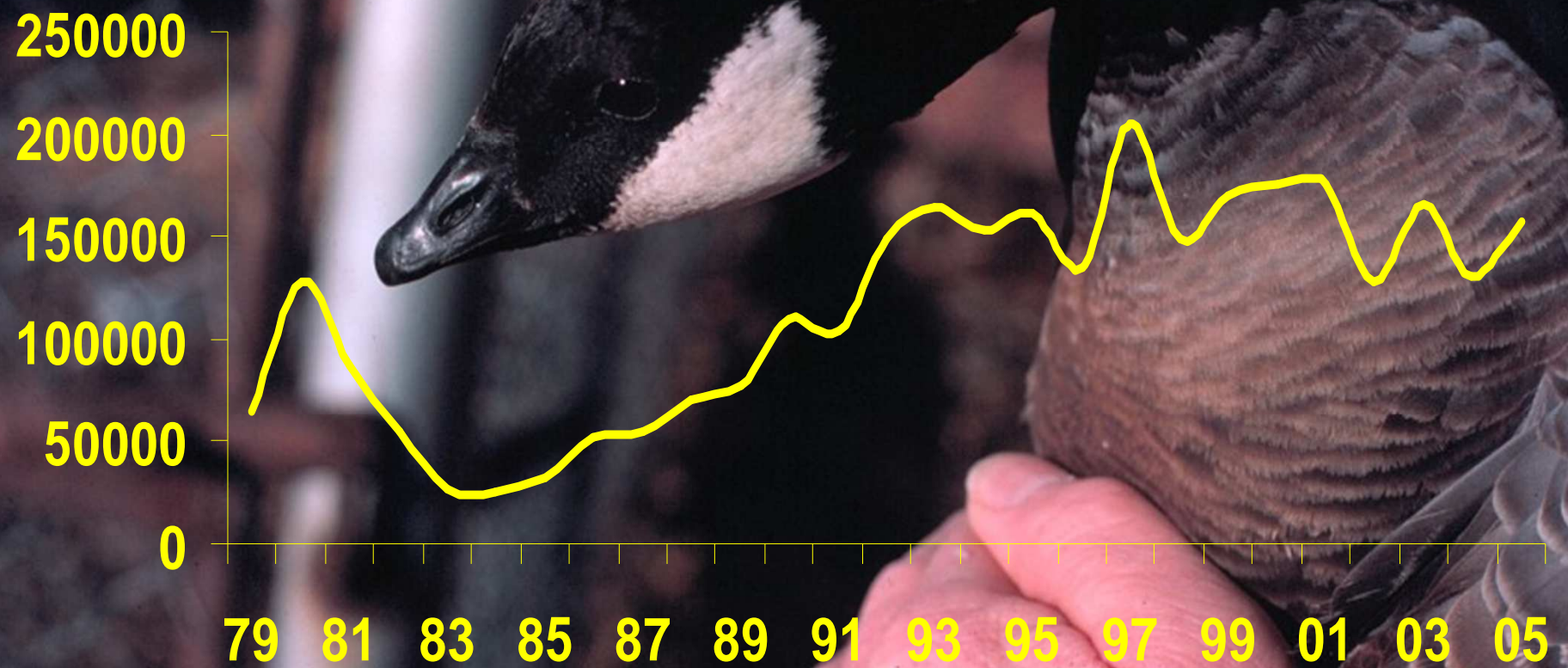


White-fronted Geese

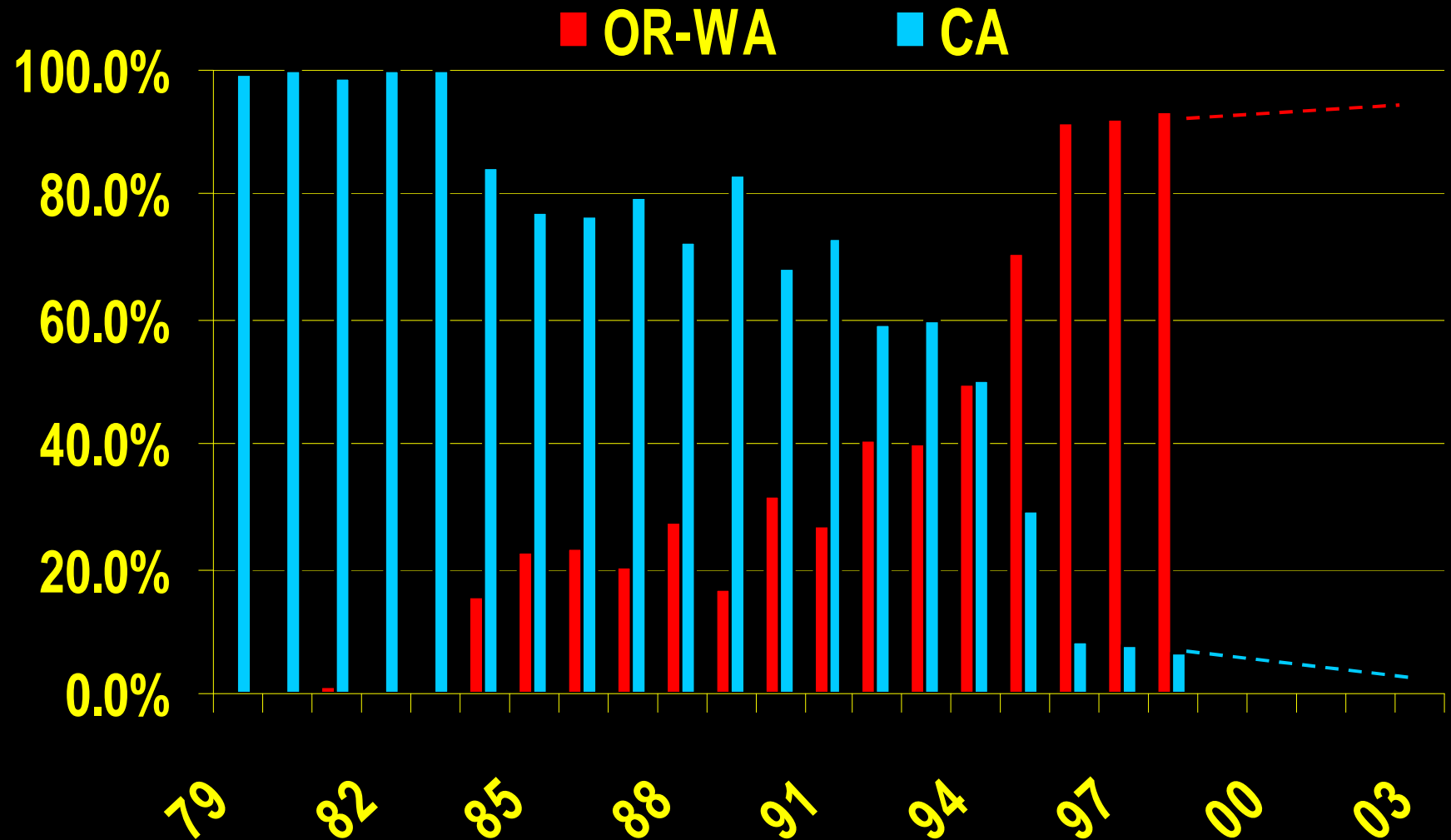




Cackling Canada Geese



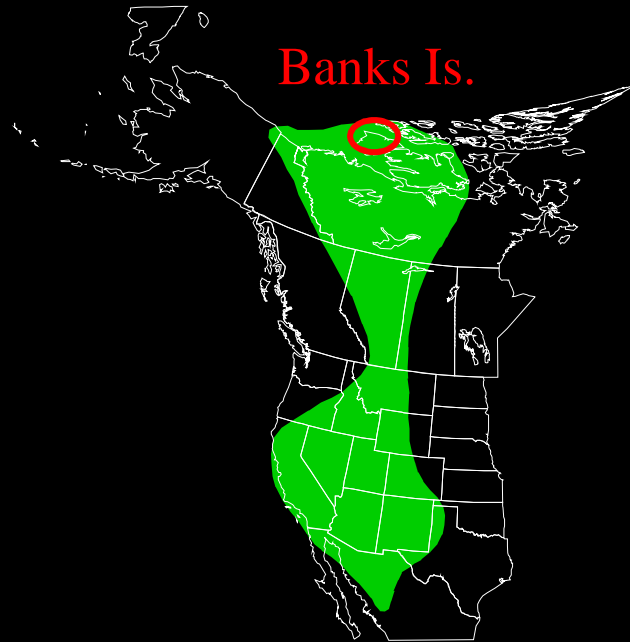
Wintering Cackler Distribution



Aleutian Canada Geese

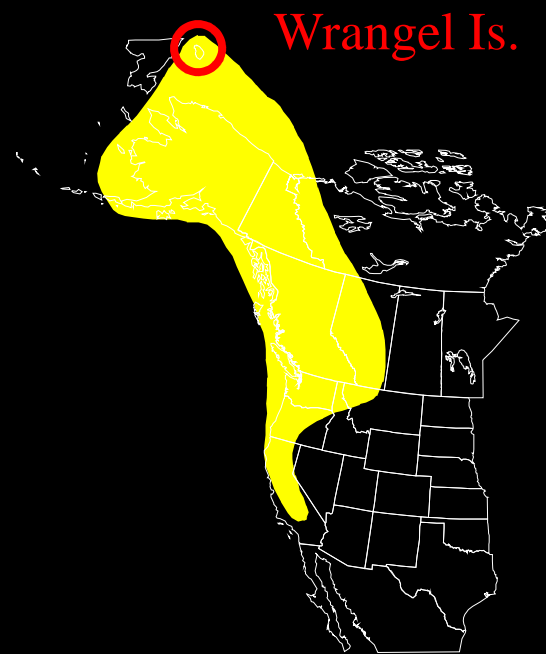


Western Canadian Arctic Population of Lesser Snow Geese



MBMO 1998

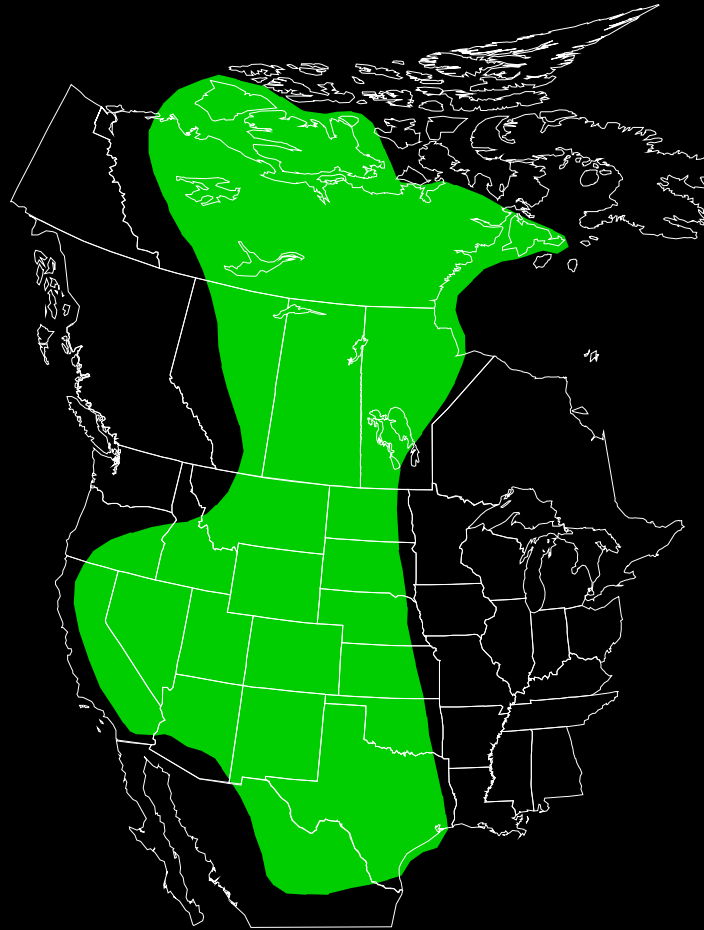
Wrangel Island Population of Lesser Snow Geese



MBMO 1998



Ross' Goose Population



Wrangel Island, Russia



White Geese

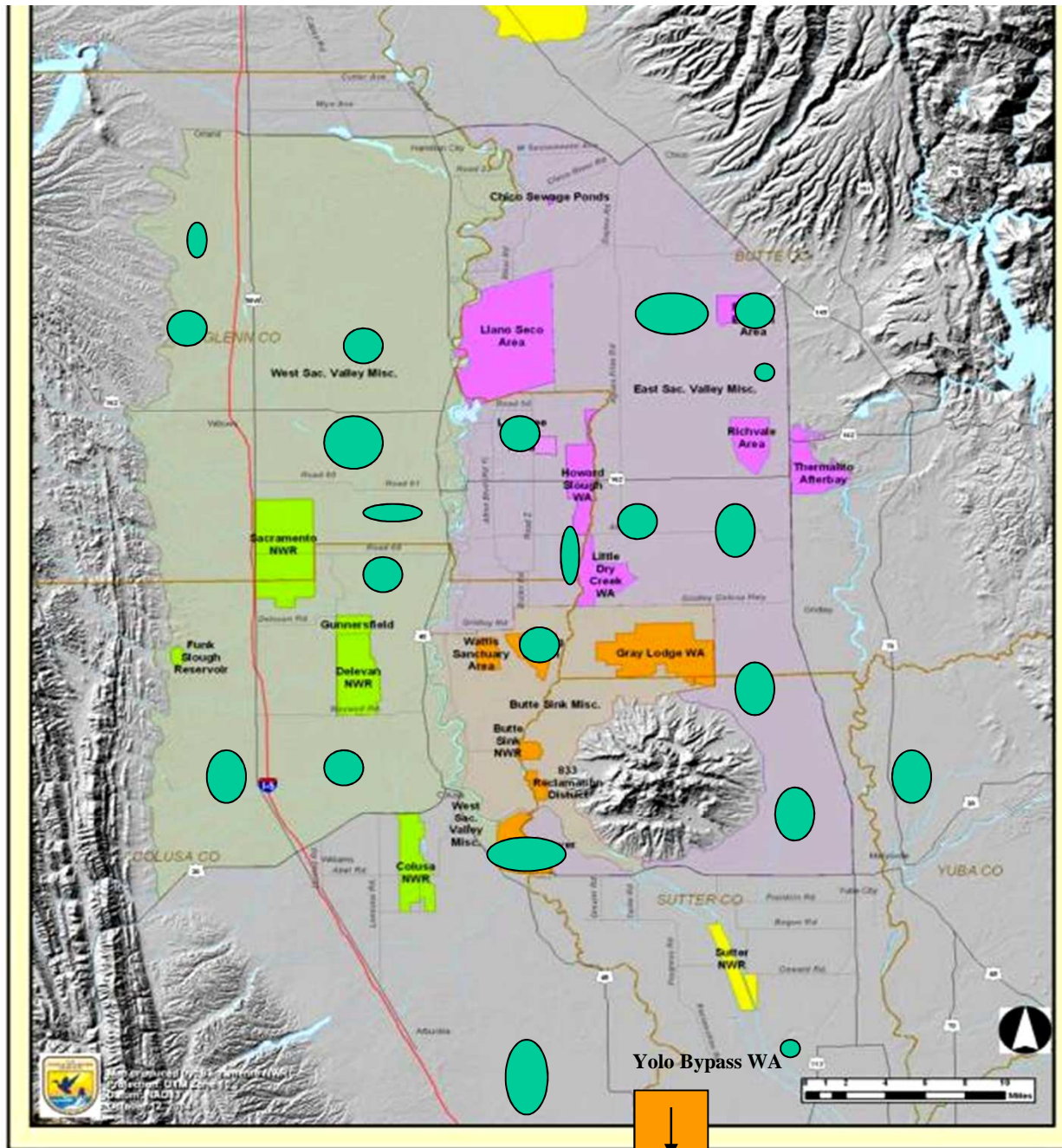


Daily Bag Limit for Geese - Balance of State Zone

	2004	2005	2006	2007	08-10	10-11
Total Geese	3	4	4	6	8	8
White Geese	3	4	4	4	6	6
Canada Geese total/small	3/1	4/4	4/4	6/6	6/6	6 ¹
Whitefronts²	3	3	4	4	4	4

¹ As of 2010, subspecies (sizes) of Canada geese were no longer differentiated.

² Outside West Sac. Valley Management Area.





California's Central Valley provides wintering habitat for 60% of the Pacific Flyway's waterfowl. They begin arriving from their breeding grounds as early as August, with peak numbers present from November to January. The return migration begins in late January, with most wintering waterfowl departing by mid May. Historically, crop depredation issues usually occurred in the fall, but increased goose populations in the Flyway are now resulting in spring complaints. Cold wet springs up north and early planting of crops in the Sacramento Valley due to dry springs has resulted in birds remaining into late April or early May grazing on newly sprouted spring crops.

Equipment Used To Scare Waterfowl and Other Birds.



California WS Factsheet
February 27, 2009

Managing Waterfowl Depredation on Agricultural Crops in the Central Valley

What Are You Allowed To Do?

1. You may legally drive, herd, or scare waterfowl in order to prevent damage to agricultural crops. You may use pyrotechnics (cracker shells, bangs, whistles, propane cannons) but not live ammunition. See the attached list of sources/suppliers of these materials, and check for local ordinances regarding their use.
2. You must not injure or kill any of the birds.
3. Be aware of county laws and regulations in regard to use of pyrotechnics.
4. We recommend eagle and coyote silhouettes or parking vehicles around field borders; and/or electronic harassment devices.
5. Geese respond to pressure, but it must be persistent. Also be aware of their late evening and early morning movements.
6. Begin discouraging goose use of newly planted crops immediately, rather than let them develop any comfort level in your area.



WESTERN FLYWAYS OF NORTH AMERICA

Methods To Reduce or Prevent Waterfowl Depredation

1. **Habitat Modification** - Habitat modification involves physically altering property to make it less attractive to geese. A) Modifications made to crop types/varieties to result in later planting dates and delayed sprouting will work toward alleviating spring depredation. B) Leave some fields undisked to allow geese to forage on annual grasses.
2. **Harassment Tools** - Dogs, herding, hazing, pyrotechnics, scarecrows, electronic calls, and silhouettes/effigies are most effective when used in combination, so that discouragement is consistent rather than sporadic and one type/tool reinforces the effectiveness of another.
3. **Lethal control** -

A) Depredation permits- need to be applied for well in advance (<http://www.fws.gov/permits>).

B) Hunting regulations for geese are controlled by the Migratory Bird Treaty Act which does not allow hunting after March 10. Conservation Orders, that allow harvest after March 10, have been issued by the U.S. Fish and Wildlife Service for light geese in other Flyways, but goose populations in the Pacific Flyway do not meet the criteria used elsewhere to establish these control methods.

Laws and Regulations - Read control orders and obtain depredation permits prior to use

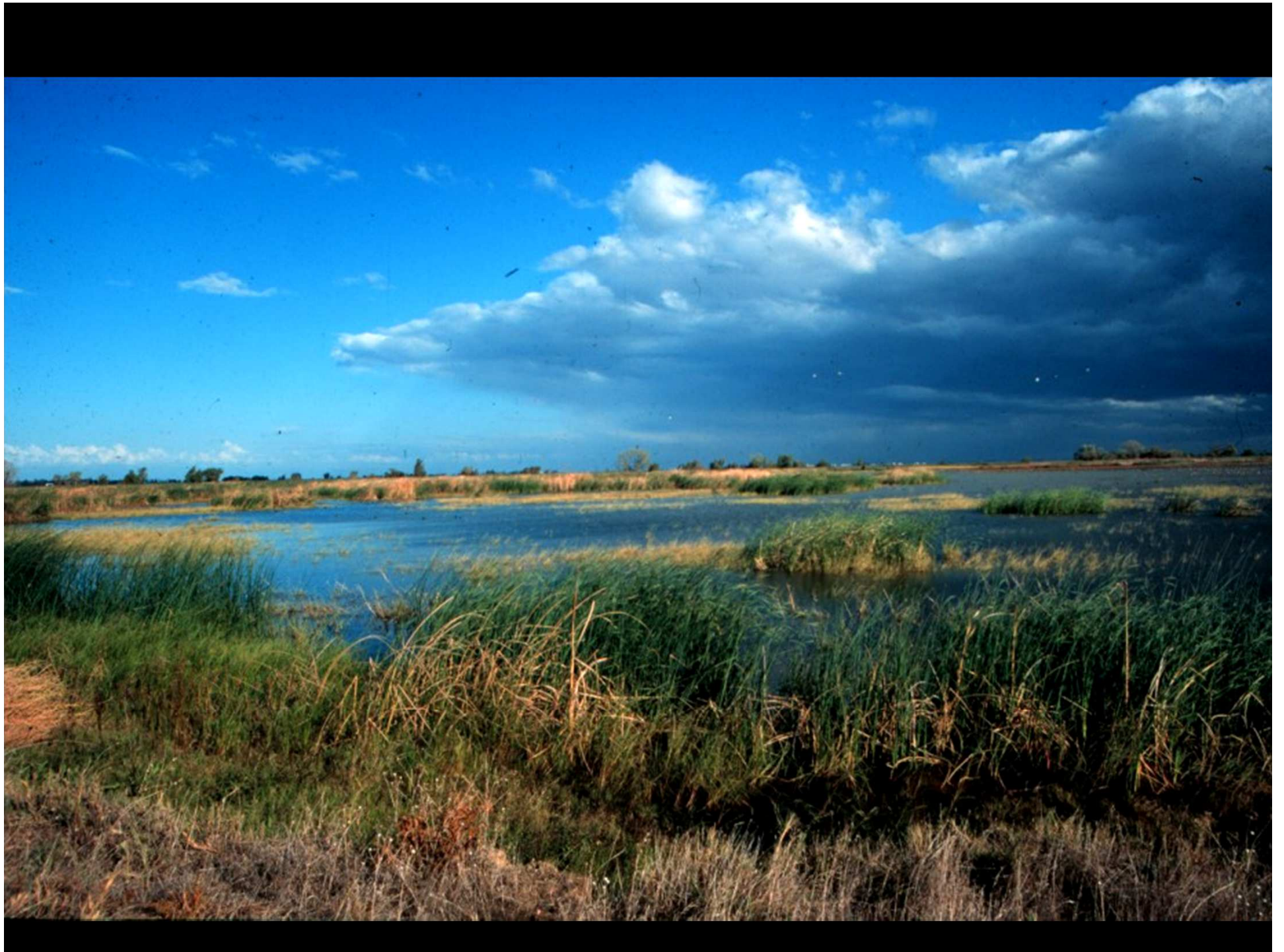
Depredation permits: Issued by USFWS. They are required prior to lethally removing migratory birds except for control orders. <http://www.fws.gov/permits>, \$100 Fee.

Depredation control orders: Identifies and allows lethal removal of various species of birds in certain situations. Read control orders completely prior to implementing!

50 CFR 21.43: Allows lethal take of yellow-headed, red-winged, rusty and brewers blackbirds, cowbirds, grackles, crows and magpies committing depredations upon trees, crops, livestock, or wildlife.

For further information or assistance in solving waterfowl problems, contact any of the organizations listed on the back or the USDA APHIS Wildlife Services District Office for your area.



















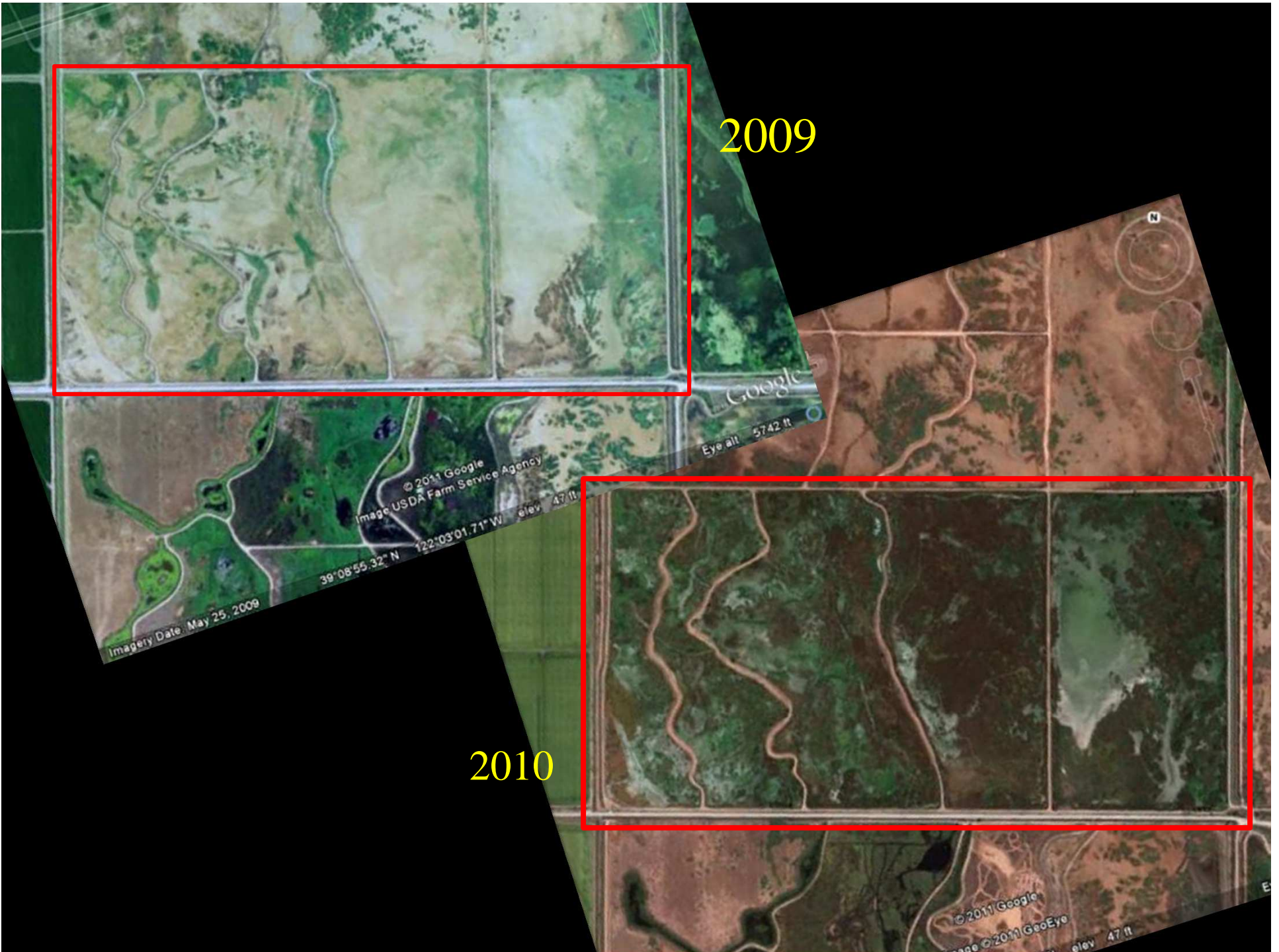








2009



2010













Take-home Messages

- Increasing goose pops. have resulted in consumption of more wetland vegetation, primarily bulrushes
- Too much bulrush can still create poor habitat conditions, but less of need to treat now because of the geese...and maybe a need to encourage it in some areas
- Some bulrush is good, providing cover, escape areas, roosting, and nesting habitats for a variety of species

